

## REMARKS

Applicants have carefully considered this Application in connection with the Examiner's Action, and respectfully request reconsideration of this Application in view of the above Amendment and the following remarks.

Applicants have amended Claims 1, 4, 12, 13, 33, and 37. These claims have been amended to include a step of heating the nutriment and to specify that the nutriment which has been treated with the acidulant requires about 30% to about 75% less heating time to inactivate 90% of the pathogens found in the nutriment, when compared to an untreated nutriment. The Specification defines the amount of time required to reduce a microbial population by 1 log, or 90%, as its "D value." See Page 3, lines 3 – 8. Example 13 provides support for a reduction in D value of about 30% to about 75% when the nutriment has been treated with the acidulant. See Page 41, lines 7 – 12.

Applicants have also amended Claim 41 to specify that the nutriment is placed in a case, in which it then has an extended "case shelf life." See Specification, Page 6, lines 18 – 20.

Applicants have also amended Claims 34 – 36 to correct inadvertent typographical errors.

Pending in the application are Claims 1 – 13 and 33 – 43.

### **I. Rejections Under 35 U.S.C. §112, Second Paragraph**

Claims 1, 4, 12, 13, 33, 37, and 41 stand rejected under 35 U.S.C. §112, second paragraph, for omitting essential steps.

Applicants have amended Claims 1, 4, 12, 13, 33, and 37 above, in accordance with the Examiner's suggestion, to include a step of heating the nutriment. Applicants have also amended Claim 41 above, in accordance with the Examiner's suggestion, to clarify that the nutriment is placed in a container, or a "case," so that it can have a "case shelf life."

In light of these Amendments, Applicants respectfully request that the rejections under 35 U.S.C. §112, second paragraph, be withdrawn.

**II. Rejections Under 35 U.S.C. §102(b)**

Claims 1 and 3 stand rejected under 35 U.S.C. §102(b) as being anticipated by Complete course in Canning p. 238 (“Canning”) or International Patent Application Publication No. WO 00/48469 in the name of Kemp et al. (“Kemp”). Applicants respectfully assert that neither Canning nor Kemp disclose all of the elements of Claims 1 and 3.

Applicants have amended Claim 1 above to clarify that a nutriment which has been treated with the acidulant of the present application requires a heating time which is 30% to 75% less than that of an untreated nutriment. This reduced heating time destroys 90% of any microbial population which is present in the nutriment.

To anticipate a claim, a single reference must describe and enable the claimed invention, including all claim limitations, with sufficient clarity and detail to establish that the subject matter already existed in the prior art and that its existence was recognized by persons of ordinary skill in the field of the invention. *See Crown Operations International, Ltd. v. Solutia, Inc.*, 62 U.S.P.Q.2d 1917, 1921 (Fed. Cir. 2002). Furthermore, when anticipation is based on inherency of limitations not expressly disclosed in the assertedly anticipating reference, it must be shown that the undisclosed information was known to be present in the subject matter of the reference. *See Continental Can Co. U.S.A. v. Monsanto Co.*, 20 U.S.P.Q.2d 1746, 1749-50 (Fed. Cir. 1991).

Neither Canning nor Kemp disclose a heating step requiring the level of microbial inactivation that is specified in amended Claims 1 and 3. Canning simply states that “generally” shorter heating times can be employed when sterilizing foods, but does not disclose a reduction level. *See Canning*, Page 479, third full paragraph. Kemp states only that heating a food product treated with AGIIS has a “potential” for destroying micro-organisms. *See Kemp*, Page 29, line 11. Thus, neither reference discloses every element of the claims. Furthermore, neither reference mentions that the claimed level of thermal inactivation was known to be present.

For these reasons, Claims 1 and 3 are not anticipated by Canning or Kemp.

### III. Rejections Under 35 U.S.C. §103(a)

#### A. Canning in view of Kemp

Claims 2, 4 – 13, and 33 – 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Canning in view of Kemp. Applicants respectfully assert that these cited references do not teach or suggest all of the claim limitations.

Claims 1, 4, 12, 13, and 33 have been amended above to specify that a nutriment treated with the acidulant, when heated, requires about 30% to about 75% less time to inactivate 90% of any pathogens compared to the amount of heating time required to inactivate 90% of the pathogens in an untreated nutriment. **This extreme reduction of necessary heating time to sterilize the treated nutriment is neither taught nor suggested by Canning, Kemp, or the references in combination.** Canning states that “generally” shorter heating times can be employed when sterilizing foods, but does not teach or suggest a reduction level of this magnitude. *See* Canning, Page 479, third full paragraph. Kemp states that heating a food product treated with AGIIS has a “potential” for destroying micro-organisms, but does not teach or suggest the claimed reduction in heating time. *See* Kemp, Page 29, line 11.

Example 13 of the Specification shows that the 30% to 75% reduction in heating time inactivates 90% of a microbial population of enterohemorrhagic *Escherichia coli* (“EHEC”). As discussed at Page 4, lines 3 – 21, traditional methods of inactivating EHEC, including those involving acidic treatments and hot sprays, have not been completely effective. Thus, **the ability of the claimed acidulant to inactivate 90% of pathogens, including EHEC, in about 30% to about 75% less heating time is an unexpected result that could not have been reasonably expected from the cited references.**

For these reasons, Claims 2, 4 – 13, and 33 – 36 are patentable over Canning in view of Kemp.

B. Kemp in view of Guthery

Claims 37 – 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kemp in view of Guthery. Applicants respectfully assert that these cited references do not teach or suggest all of the claim limitations.

Claim 37 has been amended to specify that a chilled nutriment treated with the acidulant, when heated, requires about 30% to about 75% less time to inactivate 90% of any pathogens compared to the amount of heating time required to inactivate 90% of the pathogens in an untreated nutriment. **This extreme reduction of necessary heating time to sterilize the treated nutriment is neither taught nor suggested by Kemp, Guthery, or the references in combination.** Kemp states that heating a food product treated with AGIIS has a “potential” for destroying micro-organisms, but does not teach or suggest the claimed reduction in heating time. See Kemp, Page 29, line 11. Guthery does not discuss reductions in heating time at all.

Furthermore, as discussed above, Example 13 of the Specification shows that the 30% to 75% reduction in heating time inactivates 90% of a microbial population of enterohemorrhagic *Escherichia coli* (“EHEC”). Guthery does not teach or suggest a treatment which has the ability to eradicate EHEC from animal carcasses. Rather, Guthery states that its compositions are effective at controlling Salmonella, Campylobacter, Listeria, Enterobacteraceae, and Pseudomonas bacteria. See Guthery, Col. 2, lines 33 – 37. As discussed above, traditional methods of using acids to inactivate EHEC have been ineffective. See Specification, Page 4, lines 3 – 21. Thus, **the ability of the claimed acidulant to inactivate 90% of pathogens, including EHEC, in about 30% to about 75% less heating time is an unexpected result that could not have been anticipated from the cited references.**

For these reasons, Claims 37 – 43 are patentable over Kemp in view of Guthery.

#### IV. Conclusion

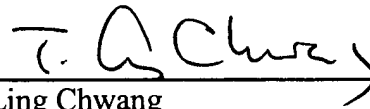
Applicants respectfully submit that, in light of the foregoing comments, Claims 1 – 13 and 33 – 43 are in condition for allowance. A Notice of Allowance is therefore requested.

Attorney Docket No.:  
MORN-0011 (108347.00022)

PATENT

If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Respectfully submitted,



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